MSI
MICRO-STAR INTERNATIONAL

Hetis G41 Series

MS-6618 (V1.X) Barebone

G52-66181X3

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U.S. Patent Numbers

4,631,603; 4,819,098; 4,907,093; 5,315,448; and 6,516,132.

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Revision History

Revision	Revision History	Date
V1.1	First Release	June 2009

Technical Support

If a problem arises with your system and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please try the following help resources for further guidance.

▶ Visit the MSI website for FAQ, technical guide, BIOS updates, driver updates and other information: ***http://global.msi.com.tw/index.php?func=service***

▶ Contact our technical staff at: ***http://ocss.msi.com.tw***

Safety Instructions

1. Always read the safety instructions carefully.
2. Keep this user's manual for future reference.
3. Keep this equipment away from humidity.
4. Lay this equipment on a reliable flat surface before setting it up.
5. The openings on the enclosure are for air convection hence protects the equipment from overheating. DO NOT COVER THE OPENINGS.
6. Make sure the voltage of the power source and adjust properly 115-230V before connecting the equipment to the power inlet.
7. Place the power cord such a way that people can not step on it. Do not place anything over the power cord.
8. Always unplug the power cord and telephone line (if modem installed) before inserting any expansion card or module.
9. All cautions and warnings on the equipment should be noted.
10. Never pour any liquid into the opening that could damage or cause electrical shock.
11. If any of the following situations arises, get the equipment checked by service personnel:
    - ▶ The power cord or plug is damaged.
    - ▶ Liquid has penetrated into the equipment.
    - ▶ The equipment has been exposed to moisture.
    - ▶ The equipment does not work well or you can not get it work according to user's manual.
    - ▶ The equipment has dropped and damaged.
    - ▶ The equipment has obvious sign of breakage.
12. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UNCONDITIONED, MAX. OPERATING TEMPERATURE 40°C (102°F), IT MAY DAMAGE THE EQUIPMENT.

WARNING:

1. For every changes in power cord's usage, please use an approved power cord with condition greater or equal to H05VV-F, 3G, 0.75mm^2.
2. Internal part is hazardous moving parts, please keep fingers and other body parts away.
3. For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
4. Do not disable the protective earth pin from the plug, the equipment must be connected to an earthed mains socket-outlet.
5. Adjustment of the volume control as well as the equalizer to other settings than the center position may increase the ear-/ headphones output voltage and therefore the sound pressure level.

CAUTION:

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

廢電池請回收

For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

1. The optical storage devices are classified as a Class 1 Laser products. Use of controls or adjustments or performance of procedures other than those specified.
2. Do not touch the lens inside the drive.

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the measures listed below:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/television technician for help.

Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2

Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.

VOIR LA NOTICE D'INSTALLATION AVANT DE RACCORDER AU RESEAU.

Micro-Star International
Hetis G41 Series

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

WEEE (Waste Electrical and Electronic Equipment) Statement

ENGLISH

To protect the global environment and as an environmentalist, MSI must remind you that...

Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life. MSI will comply with the product take back requirements at the end of life of MSI-branded products that are sold into the EU. You can return these products to local collection points.

DEUTSCH

Hinweis von MSI zur Erhaltung und Schutz unserer Umwelt

Gemäß der Richtlinie 2002/96/EG über Elektro- und Elektronik-Altgeräte dürfen Elektro- und Elektronik-Altgeräte nicht mehr als kommunale Abfälle entsorgt werden. MSI hat europaweit verschiedene Sammel- und Recyclingunternehmen beauftragt, die in die Europäische Union in Verkehr gebrachten Produkte, am Ende seines Lebenszyklus zurückzunehmen. Bitte entsorgen Sie dieses Produkt zum gegebenen Zeitpunkt ausschliesslich an einer lokalen Altgerätesammelstelle in Ihrer Nähe.

FRANÇAIS

En tant qu'écologiste et afin de protéger l'environnement, MSI tient à rappeler ceci...

Au sujet de la directive européenne (EU) relative aux déchets des équipement électriques et électroniques, directive 2002/96/EC, prenant effet le 13 août 2005, que les produits électriques et électroniques ne peuvent être déposés dans les décharges ou tout simplement mis à la poubelle. Les fabricants de ces équipements seront obligés de récupérer certains produits en fin de vie. MSI prendra en compte cette exigence relative au retour des produits en fin de vie au sein de la communauté européenne. Par conséquent vous pouvez retourner localement ces matériels dans les points de collecte.

РУССКИЙ

Компания MSI предпринимает активные действия по защите окружающей среды, поэтому напоминаем вам, что....

В соответствии с директивой Европейского Союза (ЕС) по предотвращению загрязнения окружающей среды использованным электрическим и электронным оборудованием (директива WEEE 2002/96/EC), вступающей в силу 13 августа 2005 года, изделия, относящиеся к электрическому и электронному оборудованию, не могут рассматриваться как бытовой мусор, поэтому производители вышеперечисленного электронного оборудования обязаны принимать его для переработки по окончании срока службы. MSI обязуется соблюдать требования по приему продукции, проданной под маркой MSI на территории ЕС, в переработку по окончании срока службы. Вы можете вернуть эти изделия в специализированные пункты приема.

ESPAÑOL

MSI como empresa comprometida con la protección del medio ambiente, recomienda:

Bajo la directiva 2002/96/EC de la Unión Europea en materia de desechos y/o equipos electrónicos, con fecha de rigor desde el 13 de agosto de 2005, los productos clasificados como "eléctricos y equipos electrónicos" no pueden ser depositados en los contenedores habituales de su municipio, los fabricantes de equipos electrónicos, están obligados a hacerse cargo de dichos productos al termino de su período de vida. MSI estará comprometido con los términos de recogida de sus productos vendidos en la Unión Europea al final de su periodo de vida. Usted debe depositar estos productos en el punto limpio establecido por el ayuntamiento de su localidad o entregar a una empresa autorizada para la recogida de estos residuos.

NEDERLANDS

Om het milieu te beschermen, wil MSI u eraan herinneren dat....

De richtlijn van de Europese Unie (EU) met betrekking tot Vervuiling van Electrische en Electronische producten (2002/96/EC), die op 13 Augustus 2005 in zal gaan kunnen niet meer beschouwd worden als vervuiling.

Fabrikanten van dit soort producten worden verplicht om producten retour te nemen aan het eind van hun levenscyclus. MSI zal overeenkomstig de richtlijn handelen voor de producten die de merknaam MSI dragen en verkocht zijn in de EU. Deze goederen kunnen geretourneerd worden op lokale inzamelingspunten.

SRPSKI

Da bi zaštitili prirodnu sredinu, i kao preduzeće koje vodi računa o okolini i prirodnoj sredini, MSI mora da vas podesti da...

Po Direktivi Evropske unije ("EU") o odbačenoj ekektronskoj i električnoj opremi, Direktiva 2002/96/EC, koja stupa na snagu od 13. Avgusta 2005, proizvodi koji spadaju pod "elektronsku i električnu opremu" ne mogu više biti odbačeni kao običan otpad i proizvođači ove opreme biće prinuđeni da uzmu natrag ove proizvode na kraju njihovog uobičajenog veka trajanja. MSI će poštovati zahtev o preuzimanju ovakvih proizvoda kojima je istekao vek trajanja, koji imaju MSI oznaku i koji su prodati u EU. Ove proizvode možete vratiti na lokalnim mestima za prikupljanje.

POLSKI

Aby chronić nasze środowisko naturalne oraz jako firma dbająca o ekologię, MSI przypomina, że...

Zgodnie z Dyrektywą Unii Europejskiej ("UE") dotyczącą odpadów produktów elektrycznych i elektronicznych (Dyrektywa 2002/96/EC), która wchodzi w życie 13 sierpnia 2005, tzw. "produkty oraz wyposażenie elektryczne i elektroniczne " nie mogą być traktowane jako śmieci komunalne, tak więc producenci tych produktów będą zobowiązani do odbierania ich w momencie gdy produkt jest wycofywany z użycia. MSI wypełni wymagania UE, przyjmując produkty (sprzedawane na terenie Unii Europejskiej) wycofywane z użycia. Produkty MSI będzie można zwracać w wyznaczonych punktach zbiorczych.

TÜRKÇE

Çevreci özelliğiyle bilinen MSI dünyada çevreyi korumak için hatırlatır:

Avrupa Birliği (AB) Kararnamesi Elektrik ve Elektronik Malzeme Atığı, 2002/96/EC Kararnamesi altında 13 Ağustos 2005 tarihinden itibaren geçerli olmak üzere, elektrikli ve elektronik malzemeler diğer atıklar gibi çöpe atılamayacak ve bu elektonik cihazların üreticileri, cihazların kullanım süreleri bittikten sonra ürünleri geri toplamakla yükümlü olacaktır. Avrupa Birliği'ne satılan MSI markalı ürünlerin kullanım süreleri bittiğinde MSI ürünlerin geri alınması isteği ile işbirliği içerisinde olacaktır. Ürünlerinizi yerel toplama noktalarına bırakabilirsiniz.

ČESKY

Záleží nám na ochraně životního prostředí - společnost MSI upozorňuje...

Podle směrnice Evropské unie ("EU") o likvidaci elektrických a elektronických výrobků 2002/96/EC platné od 13. srpna 2005 je zakázáno likvidovat "elektrické a elektronické výrobky" v běžném komunálním odpadu a výrobci elektronických výrobků, na které se tato směrnice vztahuje, budou povinni odebírat takové výrobky zpět po skončení jejich životnosti. Společnost MSI splní požadavky na odebírání výrobků značky MSI, prodávaných v zemích EU, po skončení jejich životnosti. Tyto výrobky můžete odevzdat v místních sběrnách.

MAGYAR

Annak érdekében, hogy környezetünket megvédjük, illetve környezetvédőként fellépve az MSI emlékezteti Önt, hogy ...

Az Európai Unió („EU") 2005. augusztus 13-án hatályba lépő, az elektromos és elektronikus berendezések hulladékairól szóló 2002/96/EK irányelve szerint az elektromos és elektronikus berendezések többé nem kezelhetőek lakossági hulladékként, és az ilyen elektronikus berendezések gyártói kötelessé válnak az ilyen termékek visszavételére azok hasznos élettartama végén. Az MSI betartja a termékvisszavétellel kapcsolatos követelményeket az MSI márkanév alatt az EU-n belül értékesített termékek esetében, azok élettartamának végén. Az ilyen termékeket a legközelebbi gyűjtőhelyre viheti.

ITALIANO

Per proteggere l'ambiente, MSI, da sempre amica della natura, ti ricorda che....

In base alla Direttiva dell'Unione Europea (EU) sullo Smaltimento dei Materiali Elettrici ed Elettronici, Direttiva 2002/96/EC in vigore dal 13 Agosto 2005, prodotti appartenenti alla categoria dei Materiali Elettrici ed Elettronici non possono più essere eliminati come rifiuti municipali: i produttori di detti materiali saranno obbligati a ritirare ogni prodotto alla fine del suo ciclo di vita. MSI si adeguerà a tale Direttiva ritirando tutti i prodotti marchiati MSI che sono stati venduti all'interno dell'Unione Europea alla fine del loro ciclo di vita. È possibile portare i prodotti nel più vicino punto di raccolta.

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Chapter 1
Getting Started

Congratulations for purchasing the Hetis G41 Series (MS-6618) Barebone. This barebone is your best slim PC choice. With the fantastic appearance and ultra-small form factor, it can easily be set anywhere. The feature packed platform also gives you an exciting PC experience.

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Mainboard Specifications

Processor

- Intel® Core™2 Duo/ Quad and Celeron® processors in the LGA775 package

FSB

- 400/ 533/ 667/ 800/ 1066/ 1333 MHz

Chipset

- North Bridge: Intel® G41 chipset
- South Bridge: Intel® ICH7 chipset

Memory

- 2 DDR2 DIMM slots (4 GB Max) (Non-ECC)
- Supports DDR2 400/ 533/ 667/ 800 SDRAM (240-Pin/ 1.8 V)

LAN

- Supports PCI Express LAN 10/ 100/ 1000 Fast Ethernet by Intel® 82573L
- Compliant with PCI 2.3
- Supports ACPI Power Management

IEEE 1394 (Optional)

- Chip integrated by JMicron® JMB381
- Transfer rate is up to 400 Mb/s

Audio

- Chip integrated by Realtek® ALC888
- Flexible 8-channel audio with jack sensing
- Compliant with Azalia 1.0 spec
- Meet Microsoft® Windows® Vista™ Premium spec

SATA

- 2 SATAII ports by Intel® ICH7 chipset
- 1 ESATA port by JMicron® JMB362
- Supports two SATA devices and one ESATA device
- Supports storage and data transfers up to 3 Gb/s

On-Board Connector

- 1 card reader connector
- 1 S/PDIF-out connector

(Connecting to graphics card with HDMI function)

Slot

- 1 PCI-X slot (For Riser Card Use Only)

Form Factor

- Proprietary (33.4 cm X 19.0 cm)

Mounting

- 5 mounting holes

Barebone Specifications

Front Panel

- 2 USB ports
- 2 audio jacks
- 1 IEEE 1394 port (Optional)

Back Panel

- 1 mouse port
- 1 keyboard port
- 2 serial ports
- 1 VGA port
- 1 DVI port
- 1 IEEE 1394 port (Optional)
- 1 eSATA port
- 1 LAN jack
- 4 USB ports
- 6 audio jacks

Built-In Card/ Board

- 1 riser card supports 1 PCI express x16 slot and 1 PCI slot

Power Supply

- 270 Watt PSU with Active PFC (Voltage Value Auto-Switch)

Drive Bay

- 1 hard disk drive bay
- 1 optical disk drive bay
- 1 card reader drive bay

Operation System (OS)

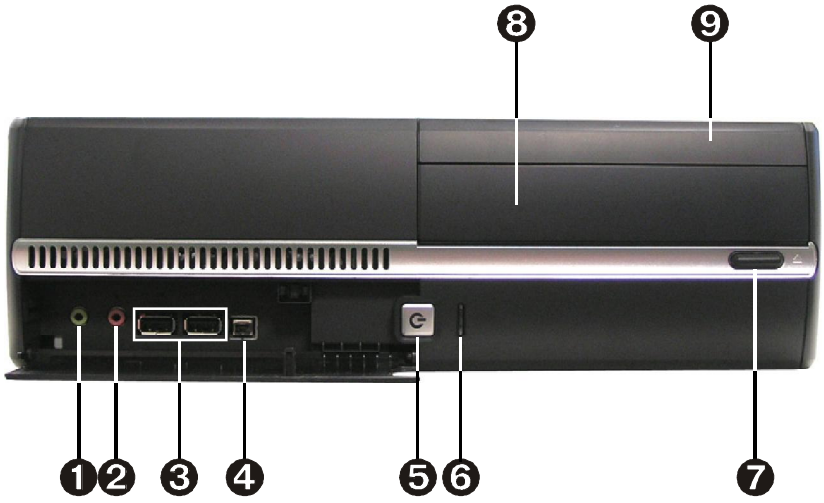
- Supports Microsoft® Windows® XP Professional/ Vista Home Premium

Dimension

- 94 mm (H) X 320 mm (W) X 350 mm (D) (with bezel/ stand)
- 94 mm (H) X 320 mm (W) X 330 mm (D) (without bezel/ stand)

System Configuration

► Front Panel



1. Headphone (Green)
This is a connector for headphones or speakers.

2. Microphone (Pink)
This is a connector for microphones.

3. USB Port
The USB (Universal Serial Bus) port is for attaching USB devices such as mouse, keyboard, printer, scanner, camera, PDA and other USB-compatible devices.

4. IEEE 1394 Port (Optional)
The IEEE 1394 port on the front panel provides connection to IEEE 1394 devices.

5. Power Button/ LED
Press the power button to turn the system on and off. The power LED is on when you turn on the system; the power LED is off when you turn off the system.

6. HDD LED

The HDD LED is on when data is read from or written to the hard disk drive.

7. Eject Button

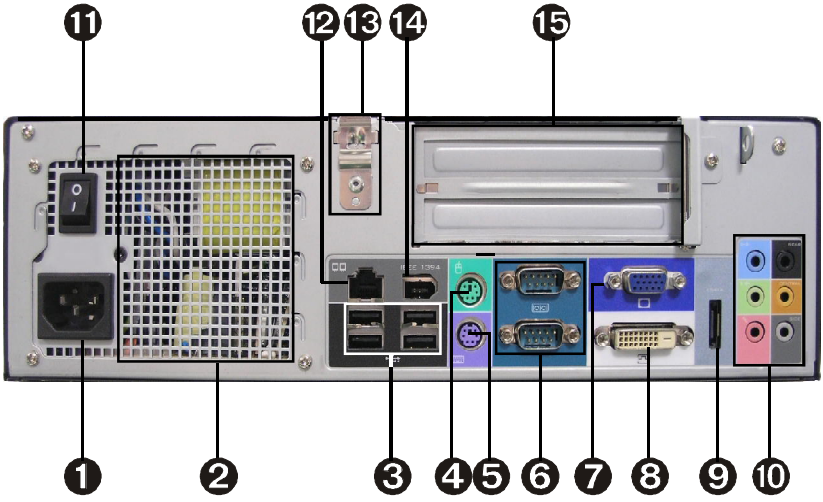
Press the eject button to open and close the optical disk drive.

8. Optical Disk Drive

9. Card Reader Drive

** The picture is for your reference only and may slightly vary from the different item you installed.*

► Back Panel



1. Power Jack

2. Ventilation Holes

3. USB Port

The USB (Universal Serial Bus) port is provided for attaching USB devices such as mouse, keyboard, printer, scanner, camera, PDA or other USB-compatible devices.

4. PS/2® Mouse Port (Green)

The standard PS/2® mouse DIN connector is for a PS/2® mouse.

5. PS/2® Keyboard Port (Purple)

The standard PS/2® keyboard DIN connector is for a PS/2® keyboard.

6. Serial Port

The serial port is a 16550A high speed communications port that sends/ receives 16 bytes FIFOs. You can attach a serial mouse or other serial devices directly to the connector.

7. VGA Port

The DB15-pin female port is provided for monitor.

8. DVI Port

The DVI (Digital Visual Interface) connector allows you to connect a LCD monitor. It provides a high-speed digital interconnection between the computer and its display device. To connect an LCD monitor, simply plug your monitor cable into the DVI connector, and make sure that the other end of the cable is properly connected to your monitor (refer to your monitor manual for more information.)

9. eSATA Port

The eSATA (External Serial ATA) port is provided for attaching the eSATA external hard drive.

10. Audio Jack

Line-In (Blue) - Line-In, is used for external CD player, tapeplayer or other audio devices.

Line-Out (Green) - Line-Out, is used for speakers or headphones.

Mic (Pink) - Mic, is used for microphones.

RS-Out (Black) - Rear-Surround Out in 4/ 5.1/ 7.1 channel mode.

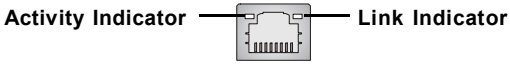
CS-Out (Orange) - Center/ Subwoofer Out in 5.1/ 7.1 channel mode.

SS-Out (Gray) - Side-Surround Out in 7.1 channel mode.

11. Power Switch

12. LAN Jack

The standard RJ-45 LAN jack is provided for connection to the Local Area Network (LAN). You can connect a network cable to it.



LED	Color	LED State	Condition
Left	Yellow	Off	LAN link is not established.
		On (steady state)	LAN link is established.
		On (brighter & pulsing)	The computer is communicating with another computer on the LAN.
Right	Green	Off	10 Mbit/ sec data rate is selected.
		On	100 Mbit/ sec data rate is selected.
	Orange	On	1000 Mbit/ sec data rate is selected.

13. Support Bracket

14. IEEE 1394 Port (Optional)

The IEEE 1394 port on the back panel provides connection to IEEE 1394 devices.

15. Expansion Slots

** The I/O (Input/ Output) part in the picture is for your reference only and may slightly vary from the different mainboard you purchased.*

System Components

► External View

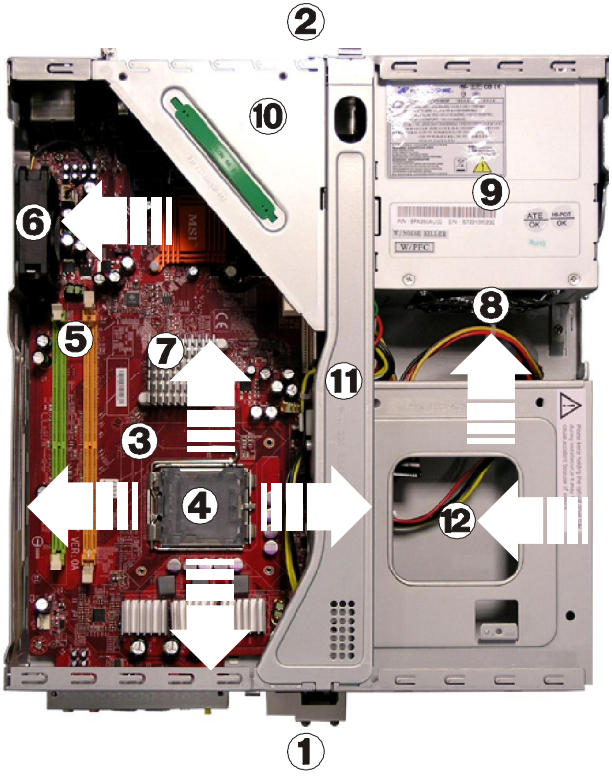
- Detachable bay housing
- Multiple ventilation holes
- Minimized screw structure

1. CPU Fan Ventilation Holes
2. System Ventilation Holes
3. System Fan Ventilation Holes
4. Power Supply Ventilation Holes
5. System Ventilation Holes
6. System Ventilation Holes
7. System Ventilation Holes

** Please keep other objects away from the ventilation holes at least 2.5 cm and above. Do not block the ventilation holes.*

► Internal View

(with system thermal solution)

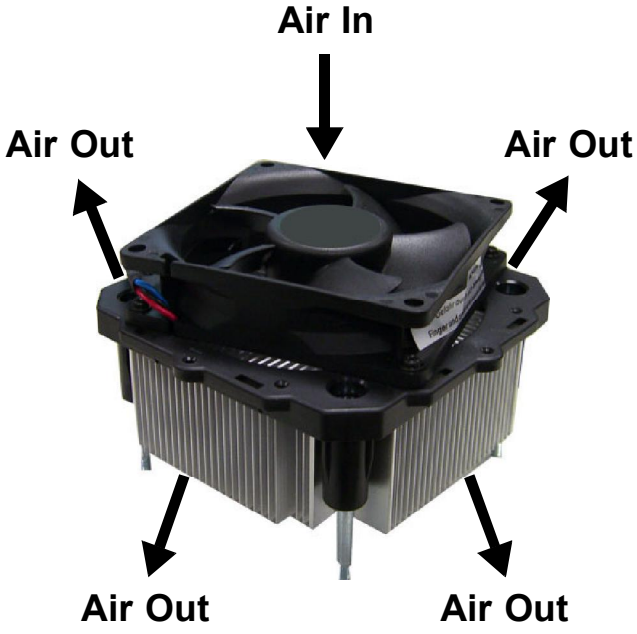


1. Front Panel
2. Back Panel
3. Mainboard
4. CPU Socket
5. Memory Slot
6. System Fan
7. Heat Sink
8. Power Supply Fan
9. Power Supply Unit
10. Riser Card
11. Support Bracket
12. Drive Bays (from top to bottom) Card Reader Drive/ Optical Disk Drive/ Hard Disk Drive

** The picture is for your reference only and may slightly vary from the different item you installed.*

(with CPU cooler thermal solution)

To prevent the system from overheating, we have adopted a specially designed CPU cooler and multiple ventilation holes for better cooling effects. The following figures illustrate how the system fan effectively exhausts hot air through multiple ventilation holes.



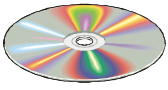
Packing Contents

Barebone

Stand

CPU Cooler

Manual



Driver/ Utility CD

** Please contact us immediately if any of the item is damaged or missing.*

** The picture is for your reference only and your packing contents may slightly vary depending on the model you purchased.*

Chapter 2
System Information

This chapter provides you with the information about the system setup procedures.

▶ Always use grounded wrist strap before holding computer components, static electricity may damage the computer components.

▶ Always unplug the power cord and telephone line (if modem installed) before inserting any expansion card or module.

▶ Always hold computer components by the edges to avoid touching the ICs on the computer components.

▶ Always place computer component on the grounded antistatic pad or in the package that came with the computer component.

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System Introduction

The built-in mainboard (MS-7430) is designed for the Hetis G41 Series Barebone (MS-6618) only. Except the mainboard, the built-in components of the barebone include power supply and system fan. In this chapter, we will show you how to install CPU, CPU Cooler, memory module, hard disk drive, optical disk drive and card reader.

► Necessary Components

1. CPU
2. CPU Cooler
3. Memory Module
4. Hard Disk Drive (HDD)
5. Optical Disk Drive (ODD)
6. Card Reader

► Necessary Tools

1. Screwdriver (Crosshead)

This can be used to do most of the installation. Choose one with a magnetic head would be better.

2. Pliers

This can be used as an auxiliary tool to connect some connectors or cables.

3. Forceps

This can be used to pick up tiny screws or set up the jumpers.

4. Rubber Gloves

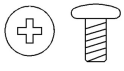
This can prevent yourself from being incised and suffering the static charge.

5. Electric Screwdriver

This can be used to lock the stand.

► Necessary Screws

Two types of screws are used in assembling the barebone: Round-headed screw and thumb screw.

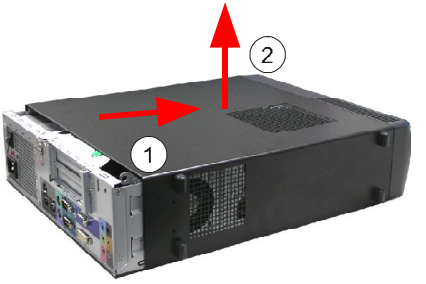


Round-Headed Screw: This type of screw is used to attach the HDD and Card Reader to the tray.

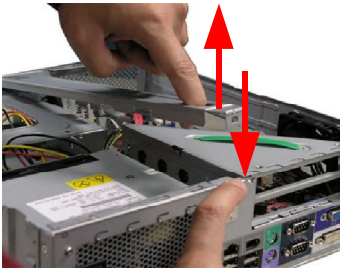
Removing the Cover

Step 1. Unlock the two screws on the back panel.

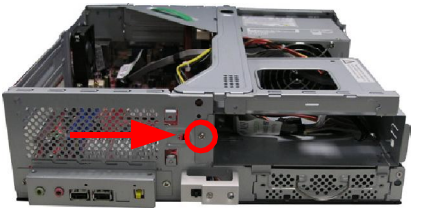
Step 2. Remove the cover.



Step 3. Press the level on the support bracket to release it.

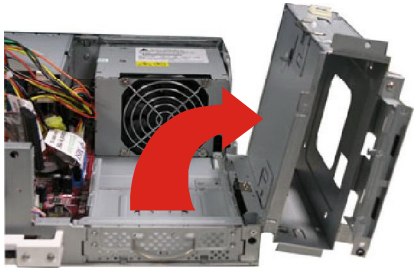


Step 4. Unlock the screw on the front panel to release the drive bay.

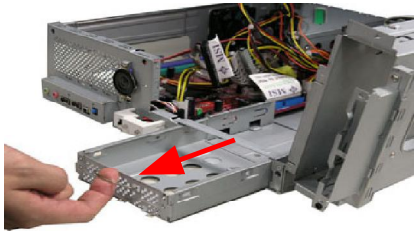


Installing the Hard Disk Drive (HDD)

Step 1. Lift the drive bay to slide aside.

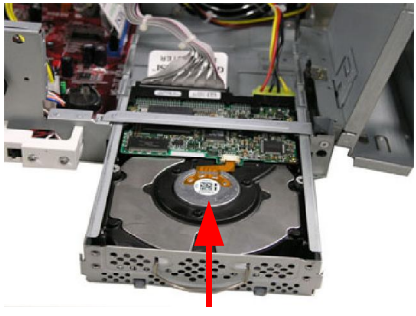


Step 2. Pull the HDD tray forwards to remove it from the chassis.



Step 3. Put the HDD in the HDD tray and use four screws to fix it on both sides.

Step 4. Connect the cable and the power cord to the HDD, then put the HDD tray back to secure it on the drive bay.



Installing the Optical Disk Drive (ODD)

Step 1. Pull the lock brackets outwards on the both sides to release.

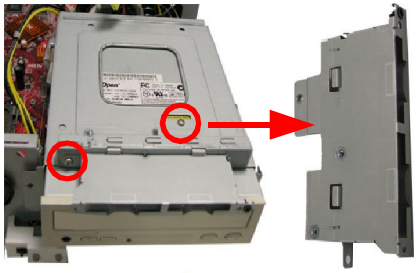
Step 2. Insert the ODD and push the lock brackets back to fix it.

Step 3. Connect the cable and the power cord to the ODD, then restore the drive bay.

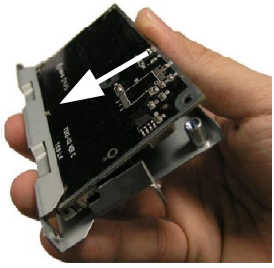
Step 4. Lock the screw on the front panel to fix the drive bay.

Installing the Card Reader

Step 1. Use the screwdriver to unlock the card reader bay.

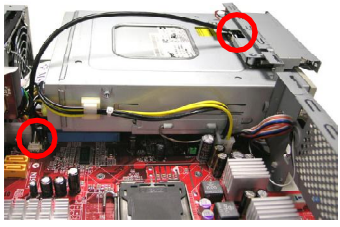


Step 2. Insert the card reader into the bay with 15 degree angle.



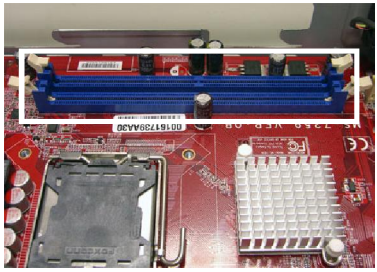
Step 3. Insert the LED into the cage and lock the card reader with two screws.

Step 4. Restore the card reader back and connect the cable to the CR1 connector on the mainboard.



Installing the Memory Module

Step 1. Locate the DIMM slots.

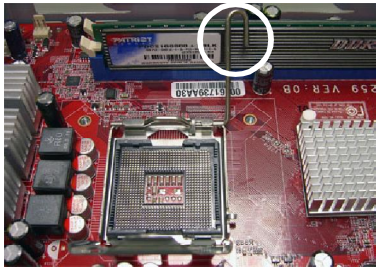


Step 2. Insert the DIMM vertically into the slot.

Note: *The DIMM has only one notch on the center of module. It will only fit in the right direction.*

Installing the CPU

Step 1. Locate the CPU socket. Pull the lever away from the socket and raise it up, then lift up the cover.



Step 2. Put the CPU onto the socket.

Note: *Make sure the pins are completely embedded into the socket. The CPU can only fit in the correct direction.*

Step 3. Close the cover and the lever to complete the installaton.

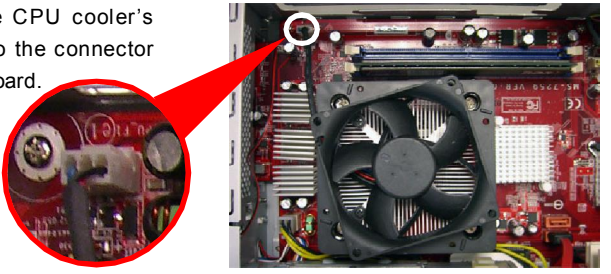
Installing the CPU Cooler

Step 1. Place the CPU cooler onto the CPU socket and secure the four screws.

Important

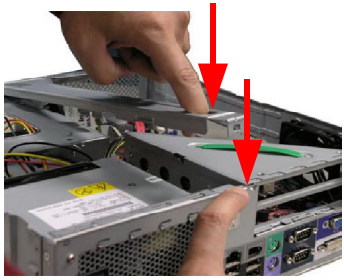
Do not fix any screw until all the four screws are in the position, and lock the four screws with balance, or it may shift the CPU position to cause the system unbootable.

Step 2. Connect the CPU cooler's power cord to the connector on the mainboard.

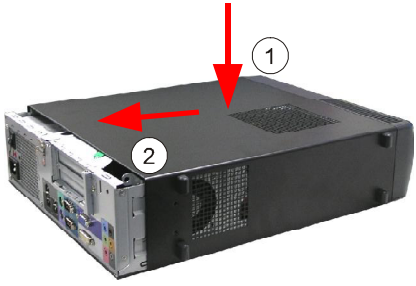


Restoring the Cover

Step 1. Restore the support bracket.



Step 2. Restore the cover.



Step 3. Lock the cover with the screws.

Vertical Type

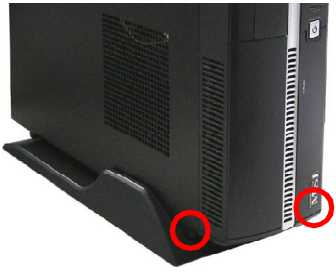
Horizontal Type

Installing the Stand

Step 1. Lift up the PC and put the rubber feet into the pits on the stand.

Step 2. Make sure the rubber feet to get stuck on the stand.

Step 3. Put the PC on the stand or lay on the rubber foots.



Important

We suggest you to install the stand if you would like to place the PC on the desk vertically, or it might fall over.

Appendix A

Realtek ALC888 Audio

The Realtek ALC888 provides 10-channel DAC that simultaneously supports 7.1 sound playback and 2 channels of independent stereo sound output (multiple streaming) through the Front-Out-Left and Front-Out-Right channels.

MSI
MICRO-STAR INTERNATIONAL

Installing the Realtek HD Audio Driver

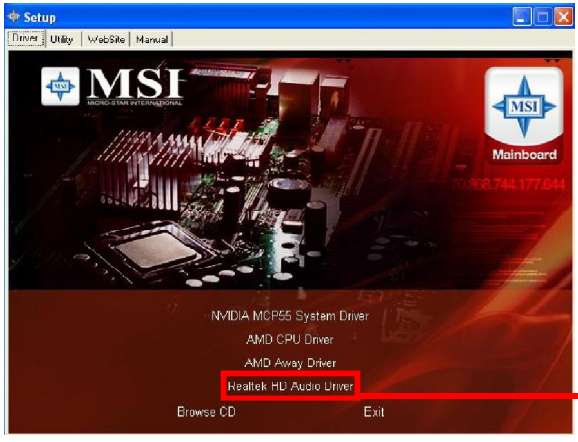
You need to install the driver for Realtek ALC888 codec to function properly before you can get access to 2-, 4-, 6-, 8- channel or 7.1+2 channel audio operations. Follow the procedures described below to install the drivers for different operating systems.

Installation for Windows 2000/XP

For Windows® 2000, you must install Windows® 2000 Service Pack4 or later before installing the driver. For Windows® XP, you must install Windows® XP Service Pack1 or later before installing the driver.

The following illustrations are based on Windows® XP environment and could look slightly different if you install the drivers in different operating systems.

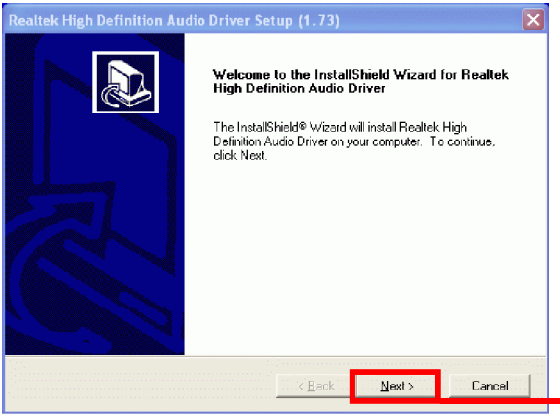
1. Insert the application CD into the CD-ROM drive. The setup screen will automatically appear.
2. Click **Realtek HD Audio Driver**.



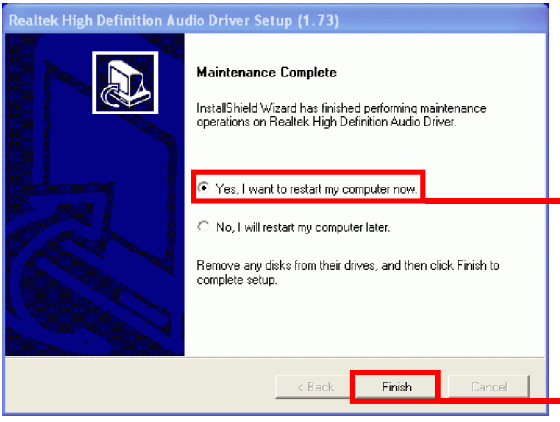
Important

*The **HD Audio Configuration** software utility is under continuous update to enhance audio applications. Hence, the program screens shown here in this section may be slightly different from the latest software utility and shall be held for reference only.*

3. Click **Next** to install the Realtek High Definition Audio Driver.

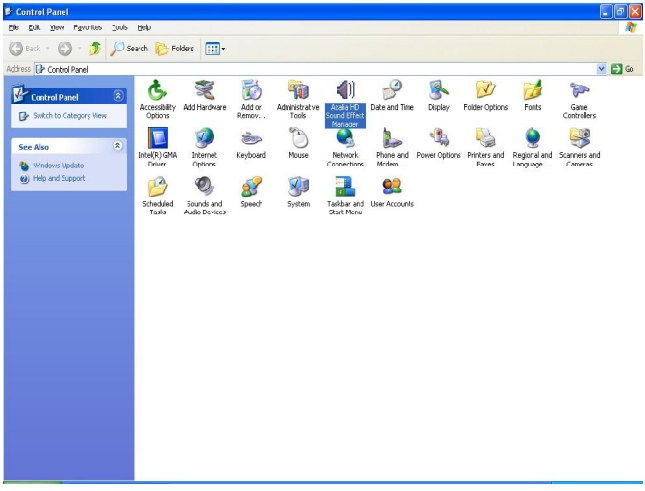

Realtek High Definition Audio Driver Setup (1.73)
Welcome to the InstallShield Wizard for Realtek High Definition Audio Driver
The InstallShield® Wizard will install Realtek High Definition Audio Driver on your computer. To continue, click Next.
< Back
Next >
Cancel
Click here

4. Click **Finish** to restart the system.


Realtek High Definition Audio Driver Setup (1.73)
Maintenance Complete
InstallShield Wizard has finished performing maintenance operations on Realtek High Definition Audio Driver.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel
Select this option
Click here

Software Configuration

After installing the audio driver, you are able to use the 2-, 4-, 6- or 8- channel audio feature now. Click the audio icon from the system tray at the lower-right corner of the screen to activate the **HD Audio Configuration**. It is also available to enable the audio driver by clicking the **Realtek HD Audio Manager** from the **Control Panel**.



Sound Effect

Here you can select a sound effect you like from the **Environment** list.

Environment Simulation

You will be able to enjoy different sound experience by pulling down the arrow, totally 23 kinds of sound effect will be shown for selection. Realtek HD Audio Sound Manager also provides five popular settings “Stone Corridor”, “Bathroom”, “Sewer pipe”, “Arena” and “Audio Corridor” for quick enjoyment.

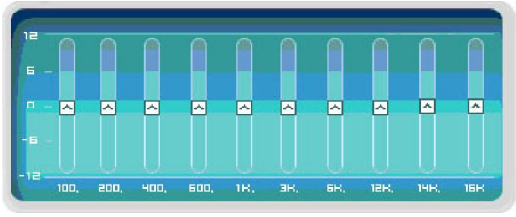
You may choose the provided sound effects, and the equalizer will adjust automatically. If you like, you may also load an equalizer setting or make an new equalizer setting to save as an new one by using the “**Load EQ Setting**” and “**Save Preset**” button, click “**Reset EQ Setting**” button to use the default value, or click “**Delete EQ Setting**” button to remove a preset EQ setting.

There are also other pre-set equalizer models for you to choose by clicking “**Others**” under the **Equalizer** part.

Equalizer Selection

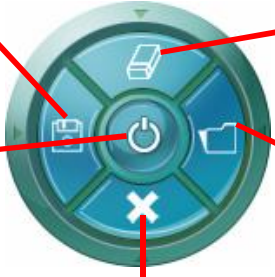
Equalizer frees users from default settings; users may create their owned preferred settings by utilizing this tool.

10 bands of equalizer, ranging from 100Hz to 16KHz.



Save
The settings are saved permanently for future use.

Reset
10 bands of equalizer would go back to the default setting.



Enable / Disable
To disable, you can temporarily stop the sound effect without losing the settings.

Load
Whenever you would like to use preload settings, simply click this, the whole list will be shown for your selection.

Delete
To delete the pre-saved settings which are created from previous steps.

Frequently Used Equalizer Setting

Realtek recognizes the needs that you might have. By leveraging our long experience at audio field, Realtek HD Audio Sound Manager provides you certain optimized equalizer settings that are frequently used for your quick enjoyment.

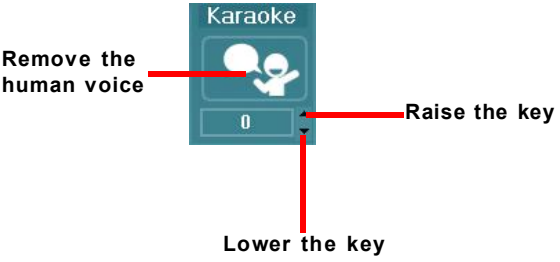
[How to Use It]

Other than the buttons “Pop” “Live” “Club” & “Rock” shown on the page, to pull down the arrow in “Others”, you will find more optimized settings available to you.

Karaoke Mode

Karaoke mode brings Karaoke fun back home. Simply using the music you usually play, Karaoke mode can help you eliminate the vocal of the song or adjust the key to accommodate your range.

1. Vocal Cancellation: Single click on “Voice Cancellation”, the vocal of the song would be eliminated, while the background music is still in place, and you can be that singer!
2. Key Adjustment: Using “Up / Down Arrow” to find a key which better fits your vocal range.



Mixer

In the **Mixer** part, you may adjust the volumes of the rear and front panels individually.

1. Adjust Volume

You can adjust the volume of the speakers that you pluged in front or rear panel by select the **Realtek HD Audio rear output** or **Realtek HD Audio front output** items.

Important

*Before set up, please make sure the playback devices are well plugged in the jacks on the rear or front panel. The **Realtek HD Audio front output** item will appear after you pluging the speakers into the jacks on the front panel.*

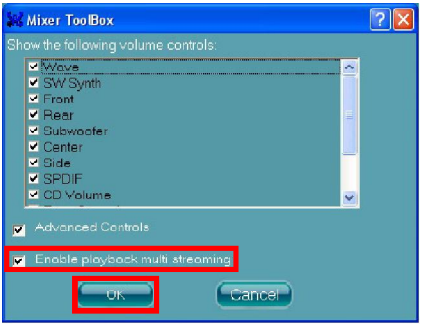
2. Multi-Stream Function

ALC888 supports an outstanding feature called Multi-Stream, which means you may play different audio sources simultaneously and let them output respectively from the indicated real panel or front panel. This feature is very helpful when 2 people are using the same computer together for different purposes.

Click the button and the Mixer **ToolBox** menu will appear. Then check the **Enable playback multi-streaming** and click **OK** to save the setup.

Important

You have to plug audio device into the jacks on the rear and front panel first before enable the multi-stream function.



When you are playing the first audio source (for example: use Windows Media Player to play DVD/VCD), the output will be played from the rear panel, which is the default setting.

Then you **must** to select the **Realtek HD Audio front output** from the scroll list **first**, and use a different program to play the second audio source (for example: use Winamp to play MP3 files). You will find that the second audio source (MP3 music) will come out from the Line-Out audio jack of Front Panel.

3. Playback control

Mute

You may choose to mute single or multiple volume controls or to completely mute sound output.

Tool

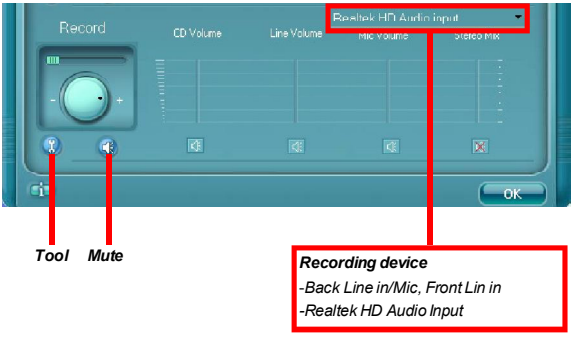
- Show the following volume controls

This is to let you freely decide which volume control items to be displayed.

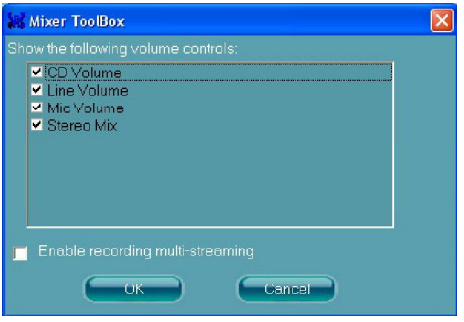
- Advanced controls
- Enable playback multi-streaming

With this function, you will be able to have an audio chat with your friends via headphone (stream 1 from front panel) while still have music (stream 2 from back panel) in play. At any given period, you can have maximum 2 streams operating simultaneously.

4. Recording control



Mute
You may choose to mute single or multiple volume controls or to completely mute sound input.
Tool
- Show the following volume controls
This is to let you freely decide which volume control items to be displayed.
- Enable recording multi-streaming



Important

ALC888 allows you to record the CD, Line, Mic and Stereo Mix channels simultaneously, frees you from mixing efforts. At any given period, you may choose 1 of the following 4 channels to record.

Audio I/O

In this tab, you can easily configure your multi-channel audio function and speakers. You can choose a desired multi-channel operation here.

a. **Headphone** for the common headphone
b. **2CH Speaker** for Stereo-Speaker Output
c. **4CH Speaker** for 4-Speaker Output
d. **6CH Speaker** for 5.1-Speaker Output
e. **8CH Speaker** for 7.1-Speaker Output

Speaker Configuration:

1. Plug the speakers in the corresponding jack.
2. Dialogue “connected device” will pop up for your selection. Please select the device you have plugged in.
   - If the device is being plugged into the correct jack, you will be able to find the icon beside the jack changed to the one that is same as your device.
   - If not correct, Realtek HD Audio Manager will guide you to plug the device into the correct jack.

Connector Settings

Click to access connector settings.

Connector Settings
Connector Settings
Disable front panel jack detection
Mute rear panel output when front headphone plugged in.
Enable auto popup dialog, when device has been plugged in
OK
Cancel

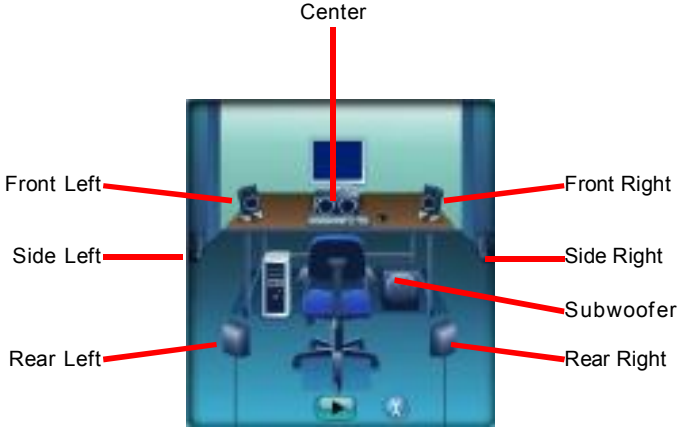
Disable front panel jack detection (option)
Find no function on front panel jacks? Please check if front jacks on your system are so-called AC'97 jacks. If so, please check this item to disable front panel jack detection.

Mute rear panel output when front headphone plugged in.

Enable auto popup dialogue, when device has been plugged in
Once this item checked, the dialog "Connected device" would automatically pop up when device plugged in.

Test Speakers

You can select the speaker by clicking it to test its functionality. The one you select will light up and make testing sound. If any speaker fails to make sound, then check whether the cable is inserted firmly to the connector or replace the bad speakers with good ones. Or you may click the **auto test** button to test the sounds of each speaker automatically.



Microphone

In this tab you may set the function of the microphone. Select the **Noise Suppression** to remove the possible noise during recording, or select **Acoustic Echo Cancelltion** to cancel the acoustic echo druing recording.

Acoustic Echo Cancelltion prevents playback sound from being recorded by microphone together with your sound. For example, you might have chance to use VOIP function through Internet with your friends. The voice of your friend will come out from speakers (playback). However, the voice of your friend might also be recorded into your microphone then go back to your friend through Internet. In that case, your friend will hear his/her own voice again. With AEC(Acoustic Echo Cancellation) enabled at your side, your friend can enjoy the benefit with less echo.

3D Audio Demo

In this tab you may adjust your 3D positional audio before playing 3D audio applications like gaming. You may also select different environment to choose the most suitable environment you like.

Information

In this tab it provides some information about this HD Audio Configuration utility, including Audio Driver Version, DirectX Version, Audio Controller & Audio Codec. You may also select the language of this utility by choosing from the **Language** list.

Also there is a selection **Show icon in system tray**. Switch it on and an icon will show in the system tray. Right-click on the icon and the **Audio Accessories** dialogue box will appear which provides several multimedia features for you to take advantage of.

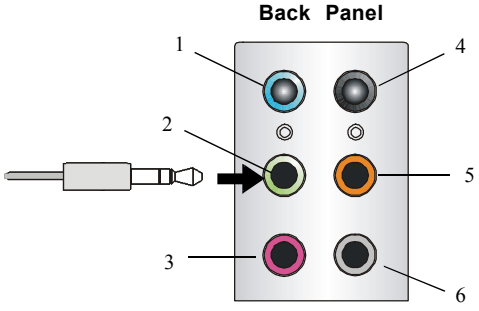
Hardware Setup

Connecting the Speakers

When you have set the Multi-Channel Audio Function mode properly in the software utility, connect your speakers to the correct phone jacks in accordance with the setting in software utility.

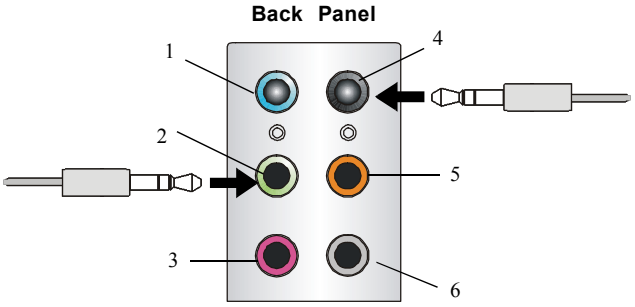
■ **2-Channel Mode for Stereo-Speaker Output**

Refer to the following diagram and caption for the function of each phone jack on the back panel when 2-Channel Mode is selected.



1 Line-In
2 Line-Out (Front channels)
3 Mic
4 No function
5 No function
6 No function

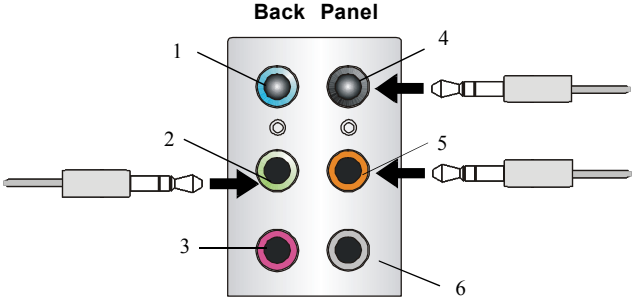
■ **4-Channel Mode for 4-Speaker Output**



4-Channel Analog Audio Output

1. Line-In
2. Line-Out (Front channels)
3. Mic
4. RS-Out (Rear surround channels)
5. No function
6. No function

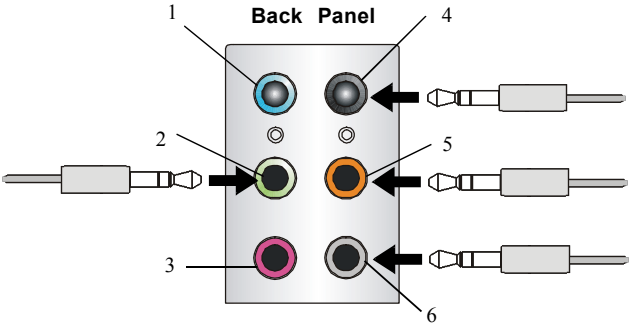
■ **6-Channel Mode for 6-Speaker Output**



6-Channel Analog Audio Output

1. Line-In
2. Line-Out (Front channels)
3. Mic
4. RS-Out (Rear surround channels)
5. CS-Out (Center and Subwoofer channel)
6. No function

■ **8-Channel Mode for 8-Speaker Output**



8-Channel Analog Audio Output

1. Line-In
2. Line-Out (Front channels)
3. Mic
4. RS-Out (Rear surround channels)
5. CS-Out (Center and Subwoofer channel)
6. SS-Out (Side channels)